

BLUE

# Work Order ID 62600



Page 1

October 5, 2010 10:28:25 AM

Item ID: D206-667-103BL

Accept



Setup Start



Revision ID:

Stop



Item Name: Crosstube Fwd.; Blue

Start Date: 10/05/10 Start Qty: 1.00



Cust Item ID:

Required Date: 10/19/10 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: CL

Date: 10/10/05 Tooling:

Date:

Run Start



QC:

Date: SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D206-667-143

C

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile and create labels as per PPP D206-667-103 CHG004

8/10/11/03

8/10/11/03

110

0.00



Pick Kit

Packaging

Packaging

Memo

0.00

Packaging

EL 10-10-01

120

0.00



BENDING MACHINE - CROSSTUBES

CNC Bend 2

Memo

0.00

CNC Alpha 160 Bender

Bend tube as per Dwg D206-667-143 using CNC bender program

EL 10-10-01

(Signature)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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**NOTE:** Date & initial all entries

**Work Order ID 62600**

October 5, 2010 10:28:26 AM



Page 2

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Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

130

QC15- Crosstube Dimensional Check

0.00

8/10/10/25



QC

Memo

0.00



Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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October 5, 2010 10:28:26 AM



Page 3

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QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140  Crosstubes	Crosstubes	0.00							
Crosstubes	<b>Memo</b> 1-Drill holes & ream using drill Jig DT8541 & DT8542 as per Dwg D206-667-143. Drill all (3) top holes.  3-Flip tube and switch drilling Jigs from right to left, left to right. Locate Jigs off existing holes using "T" pins.  4-Drill pilot holes using drill Jig DT8541 & DT8542 as per Dwg D206-667-143. Drill only the top (2) holes.  5-Drill pilot holes as per Dwg D206-667-143. Drill only the top (2) holes.  6-Drill Fwd rivet holes using drill Jig DT8787FWD as per Dwg D206-667-143. Note: Fwd side has 3x top holes.  7-Drill Aft rivet holes using drill Jig DT8787AFT as per Dwg D206-667-141.  8-C'sink holes as per Dwg D206-667-143. Allow rivet to sit below surface to compensate for paint.  9 -Scribe part # and batch # using vibrating stylus as per Dwg D206-667-143 Inside of Cuff(Donot engrave on outside of tube)  10-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D206-667-143	0.00							

SAD  
10-10-26

EL 10-10-27

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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October 5, 2010 10:28:26 AM



Page 4

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QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150  HandFXtube Hand Finishing Crosstubes	Crosstubes Chemical Conversion  Memo	0.00  0.00							
160  QC Quality Control	QC3- Inspect Part Finish  Memo	0.00  0.00							
170  QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00  0.00							

SAD  
10-10-27

S 10/10/28

S 10/10/28

W/O:		WORK ORDER CHANGES					
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October 5, 2010 10:28:26 AM



Page 5

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Stop



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180

Outsource process - NDT per QS1038 4.1

0.00

70:12828



Outsource2

Memo

0.00

Outsource process - NDT

CROSSTUBES

C2010/28

①

190

Packaging

0.00



Packaging

Memo

0.00

Packaging

Ensure copy of NDT results attached to work order.

C2010/28

①

200

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

ml 10 10 29 ①

W/O:		WORK ORDER CHANGES						
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October 5, 2010 10:28:26 AM



Page 6

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QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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210

0.00



SprayPaint

SprayPaint

Memo

0.00

Spray Painting

1-Prime inside and outside crosstube as per QSI 005 4.2

B115967

2-Paint outside crosstube with White Iron as per QSI 005 4.2

PRIME:

Start Time: \_\_\_\_\_

Finish Time: \_\_\_\_\_

DelFleet Blue B 115509  
clear DelFleet B 115506

PAINT:

Start Time: \_\_\_\_\_

Finish Time: \_\_\_\_\_

ml 10 11 01 (1)

W  
10.10.05

220

0.00



QC14- Inspect Spray Paint

QC

Memo

0.00

Quality Control

Wrap in plastic bag to protect from scratches

18 10 11 02 (1)

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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October 5, 2010 10:28:26 AM



**Accept**

**Setup Start**

**Stop**



**Start Date:** 10/05/10      **Start Qty:** 1.00

**Cust Item ID:**

**Required Date:** 10/19/10      **Req'd Qty:** 1.00



**Customer:**

**Reference:**

Run Start



**Approvals:**      **Process Plan:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Tooling:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Stop**



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

**Insp.  
Stamp**

230



## Crosstubes

## Crosstubes

0.00

0.00

## Memo

1-Install support using 0.03" to 0.06" thick layer of magnobond 6398 per.QSI 015. Let cure for 12h after installation and prior to packaging. Note: (2) Aft holes should be facing up.  
A/R Magnobond 6398 : 115580 exp: 07/2011

2-Install supports and clamps as per Dwg D206-667-143. Torque clamps to 80-100 in lb

3-Install nut plates as per Dwg D206-667-143. Touch-up rivet heads with Imron paint.

2-  $\rightarrow m \mid 10 \cdot 11 \cdot 03$

240



OC

## Quality Control

QC5- Inspect part completeness to step on W/O

0.00

## Memo

0.00

Soluluz

④

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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October 5, 2010 10:28:26 AM

Page 8

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Run Start

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursTool ID Tool # Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

250

Pick Kit

0.00



Packaging

Memo

0.00

Packaging

10/11/30

260

QC4- 100% Inspect kits for completeness

0.00



QC

Memo

0.00

Quality Control

Solul03

10/11/30

270

Packaging

0.00



Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D206-667-103

Location: 117

PPP Rev: 0

10/11/30

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**Work Order ID 62600**

October 5, 2010 10:28:26 AM

Page 9

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QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

280

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/11/03 *[Signature]*  
MF  
10-11-3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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# Picklist Print

Page 1

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Work Order ID: 62600

Parent Item: D206-667-103BL

Parent Item Name: Crosstube Fwd, Blue

Start Date: 10/05/10

Required Date: 10/19/10

Start Qty: 1.00

Required Qty: 1.00

Comments: IIP RevA: new issue DD .09.11.23 verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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D206-667-103TRN		Manufactured	No			110	Each	2.0000	1	1			
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Crosstube Turning DetailL

Location	Loc Qty	Loc Code
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LG	2	
61426	1	
61428	1	

B62630

D2873-043		Manufactured	No			230	Each	16.0000	2	2			
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Nut Plate Assembly

Location	Loc Qty	Loc Code
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ST	16	
60981	16	

B#62380

D2873-045		Manufactured	No			230	Each	14.0000	2	2			
-----------	--	--------------	----	--	--	-----	------	---------	---	---	--	--	--



Nut Plate Assembly

Location	Loc Qty	Loc Code
----------	---------	----------

LG	14	
60982	14	

B#62378

D2891-1		Manufactured	No			230	Each	53.0000	2	2			
---------	--	--------------	----	--	--	-----	------	---------	---	---	--	--	--



2.25 Support

Blue

Location	Loc Qty	Loc Code
----------	---------	----------

LG	53	
46159	7	
50952	18	
53773	20	
55786	8	

10-11-02

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Start Date: 10/05/10

Required Date: 10/19/10

Start Qty: 1.00

Required Qty: 1.00

D3595-063-395 Manufactured No

230 Each 14.0000 4 4



RUBBER CUSHION

#  
B 63368

Location	Loc Qty	Loc Code
FP	10	
44667	10	
ST	4	
60585	4	

10-11-02

cut (4)0.063" X 3.95"

MS20601-AD4W8 Purchased No

230 Each 174.0000 14 14



RIVET

#  
B 115855

Location	Loc Qty	Loc Code
ST322	174	
108521	70	
112203	104	

10-11-03

MS21920-20 Purchased No

230 Each 85.0000 4 4



Clamp (per MIL-DTL-8783C)

Location	Loc Qty	Loc Code
LG	85	
112624	2	
114687	1	
114779	6	
115057	26	
115736	50	

10-10-02

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Start Date: 10/05/10

Required Date: 10/19/10

Start Qty: 1.00

Required Qty: 1.00

AN5-30A

Purchased

No

250

Each

78.0000

4

4



BOLT



10/11/38

Location

Loc Qty

Loc Code

ST339

78

112933

3

114437

25

114941

50

4

AN5-32A

Purchased

No

250

Each

300.0000

4

4



Bolt



10/11/38

Location

Loc Qty

Loc Code

ST340

300

114056

40

114405

50

115016

50

115108

50

115589

60

115698

50

4

AN5-7A

Purchased

No

250

Each

139.0000

10

10



Bolt



1115936 10/11/38

Location

Loc Qty

Loc Code

ST337

139

113149

139

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

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Start Date: 10/05/10

Required Date: 10/19/10

Start Qty: 1.00

Required Qty: 1.00

AN960JD516 NAS1149D0563J Purchased No  
  
 Washer

250 Each 34.0000 18 18



1117742 10/11/38

Location	Loc Qty	Loc Code
ST	34	
103694	18	
107534	12	
109287	4	

AN970-4 Purchased No  
  
 Washer

250 Each 86.0000 12 12



10/11/38

Location	Loc Qty	Loc Code
ST349	86	
115531	36	
115621	50	

MS21042L5 Purchased No  
  
 Nut

250 Each 899.0000 4 4



10/11/38

Location	Loc Qty	Loc Code
ST139	26	
114813	26	
ST300	873	
115156	373	
115594	500	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

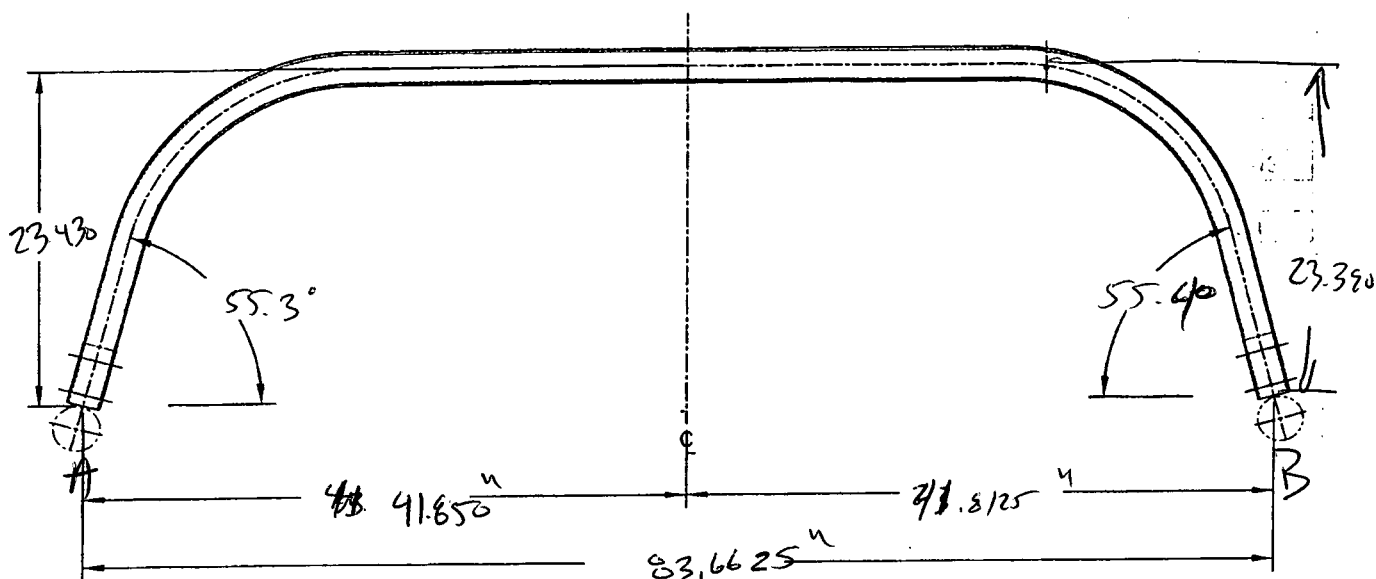
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

DART AEROSPACE LTD		Work Order:	
Description: Crosstube High Fwd (206L)		Part Number:	D206-667-103
Inspection Dwg: D206-667-143 Rev: C		Page 1 of 1	

Required Dimension	Min	Max
Height	23.39	23.65
1/2 Span	41.79	42.05
Angle	54	56
Total Span	83.58	84.10



Comments

QC15 Inspection	8
Date	10/10/25

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	
B	09.06.26	Dimensions updated per Dwg Rev C	KJ	
C	09.10.22	Minimum height dimension revised	KJ	

41.850

41.8125



Item	Qty	Part Number	Description
	-143		
1	X	D206-667-143	CROSSTUBE ASSEMBLY (206L HIGH FWD)
2	1	D6002-115	CROSSTUBE
3	2	D2873-043	NUT PLATE
4	2	D2873-045	NUT PLATE
5	2	D2891-1	SUPPORT
6	4	D3595-063-395	RUBBER CUSHION
7	4	MS21920-20	CLAMP (OR MS21920-21)
8	14	MS20601AD4W8	RIVET (OR NAS9302B-4-8)
9	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)

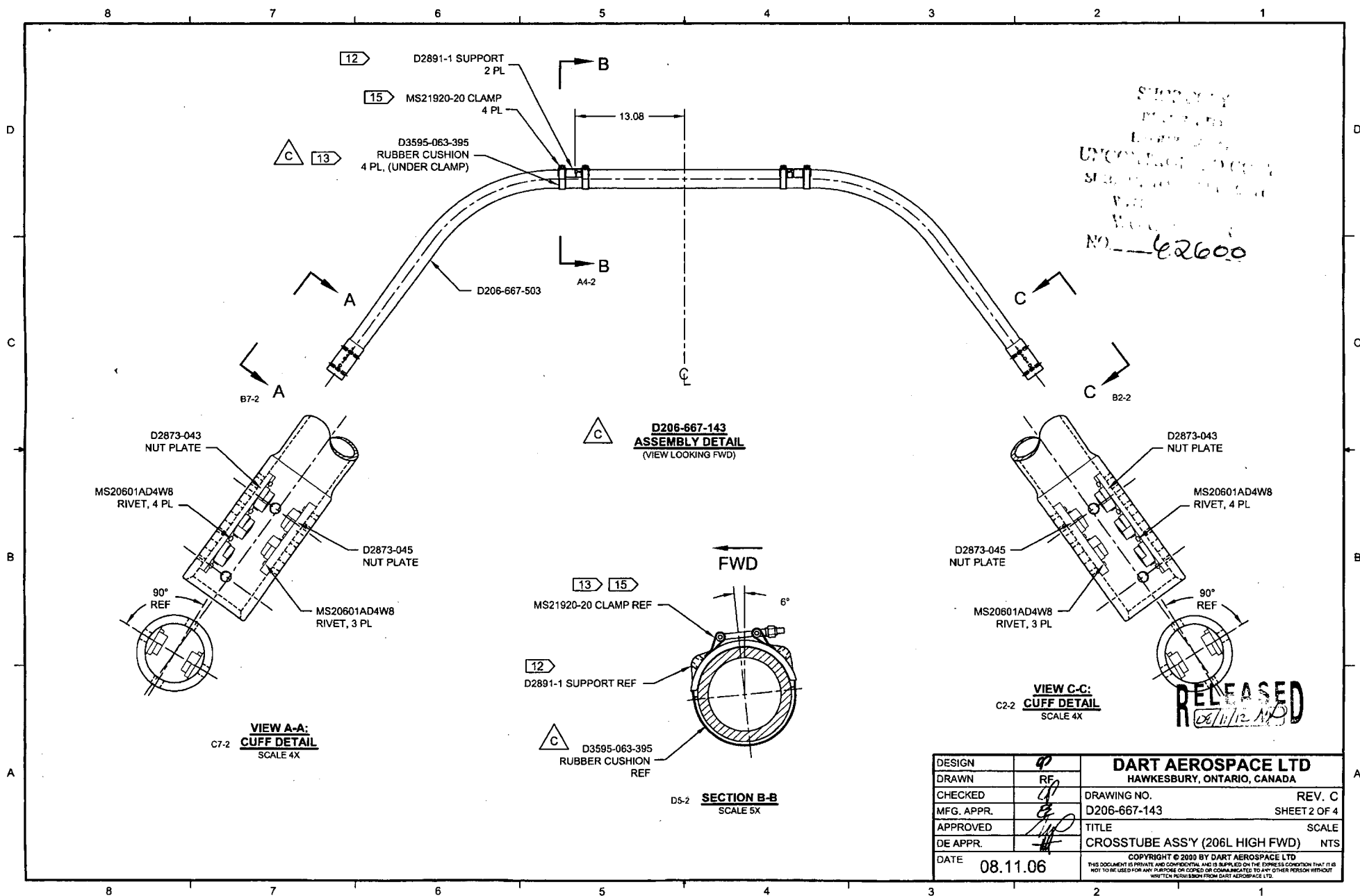
#### GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6002-115  
FINISHED LENGTH = 104.98±0.020
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2  
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D206-667-143" AND BATCH NUMBER ON INSIDE OF CUFF USING VIBRATING STYLUS.
- 7) WEIGHT: 15.5 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) RUN CUTTER OFF PART WHERE INDICATED. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 10 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2891-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-20 CLAMPS (OR -21) WITH D3595-063-395 RUBBER CUSHIONS TO SECURE THE D2891-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMP MECHANISMS ARE LOCATED ON CROSSTUBE SUPPORTS.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

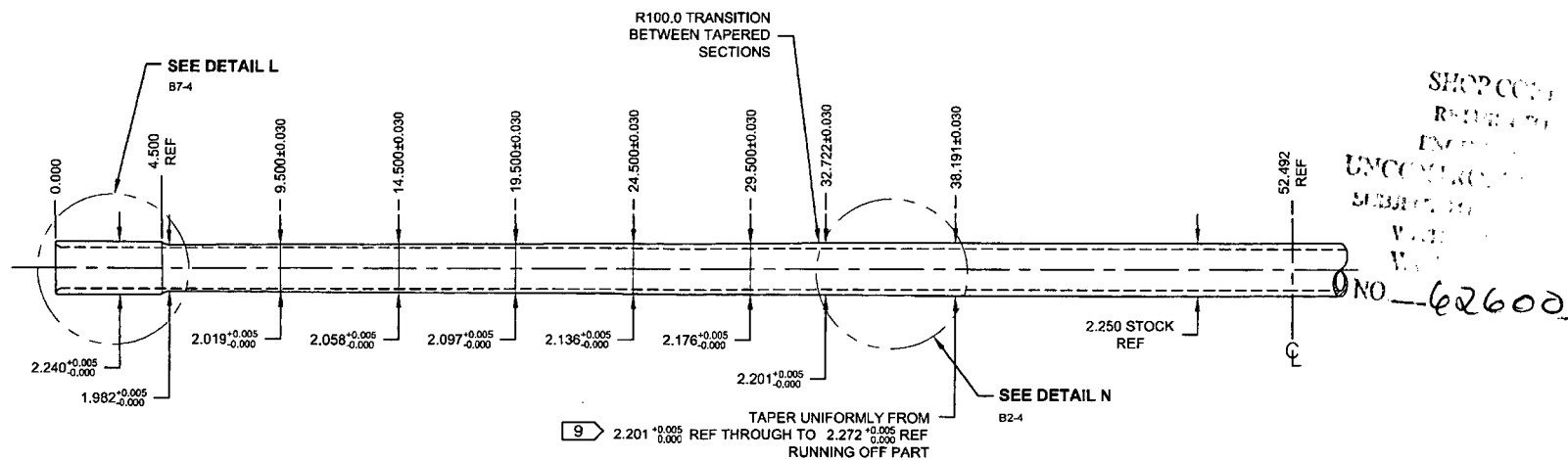
SHARP  
P  
R  
UNCO  
S  
V  
W  
NO. 62000  
C 210/10/05

RELEASED

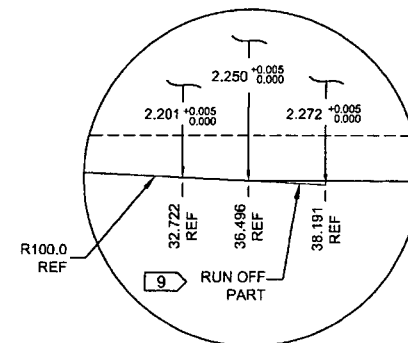
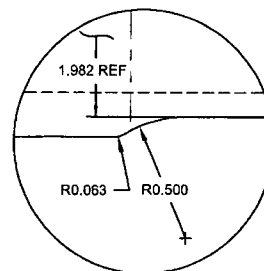
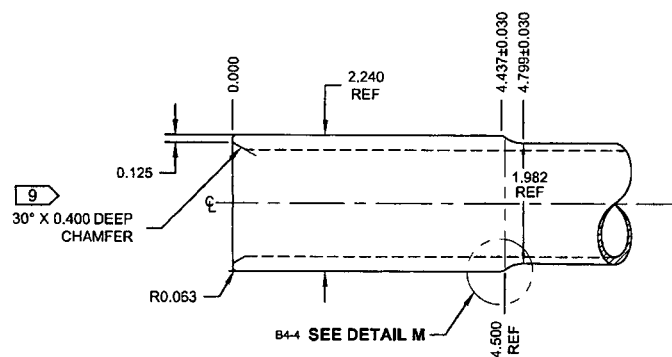
C	REVISE GENERAL NOTES/PART LIST (ZN D7-1); REORGANIZED VIEWS AND REFORMATTED DRAWING TO CURRENT STANDARDS. D3595-063-395 WAS D2858-400-694 (ZN D6-2 & A5-2); REMOVED REF. & ADD TOLERANCE (ZN D3-3, C4-3, C5-3); RELOCATED FLAG #6 (ZN A8-3) PER NCR 210; MOVED TURNING DETAIL & UPDATED TOLERANCE TO SHEET 4.	RF	08.11.06
B	ADD HOLES AND NUT PLATES FOR COMPATABILITY WITH BHT/AA SKUDTUBES	PH	05.07.26
A	NEW ISSUE	CP	00.11.17
REV.	DESCRIPTION	BY	DATE
DESIGN	90	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	90	DRAWING NO.	REV. C
MFG. APPR.	90	D206-667-143	SHEET 1 OF 4
APPROVED	90	TITLE	SCALE
DE APPR.	90	CROSSTUBE ASS'Y (206L HIGH FWD)	NTS
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**TURNING DETAIL**



**RELEASED**

DESIGN	9	<b>DART AEROSPACE LTD</b>	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	RF	DRAWING NO.	REV. C
MFG. APPR.	RF	D206-667-143	SHEET 4 OF 4
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	CROSSTUBE ASS'Y (206L HIGH FWD)	NTS
DATE	08.11.06	COPYRIGHT © 2000 BY DART AEROSPACE LTD	
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## LIQUID PENETRANT TEST REPORT

P- 15032

PAGE 1 OF 1

CLIENT Dart Aerospace DATE Oct 28 2010 TIME AM ☒ PM ☐  
ATTENTION Linda Lacelle ACUREN JOB NO. 188-10-0933  
ADDRESS 1270 Aberdeen St. POWO NO. 112828  
Hawkesbury WORK LOCATION Hawkesbury  
ACCEPTANCE STD. ASTM 1417/81-C38 REV./DATE 2005  
PROJECT x-Tubes # D206-667-103 & D206-667-103 BL  
ITEM(S) EXAMINED Job #s: 62310, 62743, 62744, 62600, 62601

JOB DESCRIPTION PROCEDURE NO. LT-6062 REV./DATE TECHNIQUE NO. LT-TECH 62 REV./DATE  
PART NO. D206-667-103 & D206-667-103 BL MATERIAL ALODINED ALUM. THICKNESS N/A  
SCOPE WET FLOURESCENT LIQUID PENETRANT INSPECTION CARRIED OUT ON  
100% EXTERNAL SURFACE OF THE X-TUBES

TEST DETAILS  
METHOD ☒ FLUORESCENT ☐ VISIBLE ☒ WATER WASH ☐ SOLVENT REMOVABLE ☐ POST EMULSIFIED  
FAMILY BRAND Magnaflux BLACK LIGHT S/N 8178 ☐ OUTPUT > 1000  $\mu$ W/cm<sup>2</sup> ☐ AMBIENT < 2 fc  
PENETRANT ZL6? MINIMUM DWELL TIME 7-15 MIN. LIGHTING EQUIP. ☐ FLASHLIGHT ☐ TROUBLELIGHT ☐ OUTPUT > 100 fc @ SURFACE  
PENETRANT REMOVER H<sub>2</sub>O MINIMUM DRY TIME > 10 MIN. OTHER call Oct 15th 2010  
DEVELOPER SKD 52 MINIMUM DWELL TIME 10 MIN. LIGHT METER S/N CAL DUE DATE Apr 7 2011  
DEVELOPER TYPE ☒ NON AQUEOUS ☐ AQUEOUS ☐ DRY

TEST SURFACE  
SURFACE CONDITION ☒ AS GROUND ☐ AS WELDED ☒ MACHINED ☐ SHOT BLASTED ☒ CLEAN BARE METAL  
SURFACE TEMPERATURE ☐ < -4°C/ 20°F ☐ -4°C/ 20°F TO 10°C/ 50°F ☒ 10°C/ 50°F TO 52°C/ 125°F ☐ > 52°C/ 125°F

RESULTS- (☐ METRIC ☐ IMPERIAL)

WET FLOURESCENT LIQUID  
PENETRANT INSPECTION CARRIED  
OUT ON 100% EXTERNAL SURFACE  
ON X-TUBES:

Job #s: 62310: Acceptable  
62743: Acceptable  
62744: Acceptable  
62600: Acceptable  
62601: Acceptable

MM/ 10.10.29

Scope of Services  
The agreement of Acuren Group Inc. to perform services extends only to those services provided for in writing. Under no circumstances shall such services extend beyond the performance of the requested services. It is expressly understood that all descriptions, comments and expressions of opinion reflect the opinions or observations of Acuren Group Inc. based on information and assumptions supplied by the owner/operator and are not intended nor can they be construed as representations or warranties. Acuren Group Inc. is not assuming any responsibilities of the owner/operator and the owner/operator retains complete responsibility for the engineering, manufacture, repair and use decisions as a result of the data or other information provided by Acuren Group Inc. In no event shall Acuren Group Inc.'s liability in respect of the services referred to herein exceed the amount paid for such services.

Standard of Care  
In performing the services provided, Acuren Group Inc. uses the degree, care and skill ordinarily exercised under similar circumstances by others performing such services in the same or similar locality. No other warranty, expressed or implied, is made or intended by Acuren Group Inc.

## SIGNATURES

CLIENT REPRESENTATIVE Matt Murdoch PRINT Matt Murdoch SIGNATURE DTR # E63201  
TECHNICIAN (SIGNATURE): Fredrick Chason REPORT REVIEWED BY:  
NAME (PRINT): FREDRICK CHASON 1<sup>ST</sup> TECHNICIAN 2<sup>ND</sup> TECHNICIAN  
CGSB LEVEL # SNT LEVEL # CGSB LEVEL # SNT LEVEL #  
CGSB REG. NO. 12560 CGSB REG. NO.